



SEQUENCE LISTING

<110> E.I. du Pont de Nemours and Co.
Fahnestock, Stephen
Schultz, Thomas

<120> Water Soluble Silk Proteins in Compositions for Skin Care, Hair
Care or Hair Coloring

<130> CL-2175

<160> 14

<170> PatentIn version 3.2

<210> 1

<211> 101

<212> PRT

<213> Artificial Sequence

<220>

<223> Monomer of spider silk DP-1A analog protein

<400> 1

Gly Ala Gly Arg Gly Gly Gln Gly Ala Gly Ala Ala Ala Ala Ala Ala
1 5 10 15

Gly Gly Ala Gly Gln Gly Gly Tyr Gly Gly Leu Gly Ser Gln Gly Ala
20 25 30

Gly Arg Gly Gly Leu Gly Gly Gln Gly Ala Gly Ala Ala Ala Ala Ala
35 40 45

Ala Ala Gly Gly Ala Gly Gln Gly Gly Leu Gly Ser Gln Gly Ala Gly
50 55 60

Gln Gly Ala Gly Ala Ala Ala Ala Ala Ala Gly Gly Ala Gly Gln Gly
65 70 75 80

Gly Tyr Gly Gly Leu Gly Ser Gln Gly Ala Gly Gln Gly Gly Tyr Gly
85 90 95

Gly Leu Gly Ser Gln
100

<210> 2

<211> 101

<212> PRT

<213> Artificial Sequence

<220>

<223> Monomer of spider silk DP-1B.9 analog protein

<400> 2

Gly Ala Gly Gln Gly Gly Tyr Gly Gly Leu Gly Ser Gln Gly Ala Gly
1 5 10 15

Arg Gly Gly Leu Gly Gly Gln Gly Ala Gly Ala Ala Ala Ala Ala Ala
20 25 30

Ala Gly Gly Ala Gly Gln Gly Gly Leu Gly Ser Gln Gly Ala Gly Gln
35 40 45

Gly Ala Gly Ala Ala Ala Ala Ala Ala Gly Gly Ala Gly Gln Gly Gly
50 55 60

Tyr Gly Gly Leu Gly Ser Gln Gly Ala Gly Arg Gly Gly Gln Gly Ala
65 70 75 80

Gly Ala Ala Ala Ala Ala Ala Ala Gly Gly Ala Gly Gln Gly Gly Tyr Gly
85 90 95

Gly Leu Gly Ser Gln
100

<210> 3

<211> 101

<212> PRT

<213> Artificial Sequence

<220>

<223> Monomer of spider silk DP-1B.16 analog protein

<400> 3

Ser Gln Gly Ala Gly Gln Gly Gly Tyr Gly Gly Leu Gly Ser Gln Gly
1 5 10 15

Ala Gly Arg Gly Gly Leu Gly Gly Gln Gly Ala Gly Ala Ala Ala Ala
20 25 30

Ala Ala Ala Gly Gly Ala Gly Gln Gly Gly Leu Gly Ser Gln Gly Ala
35 40 45

Gly Gln Gly Ala Gly Ala Ala Ala Ala Ala Ala Gly Gly Ala Gly Gln

50

55

60

Gly Gly Tyr Gly Gly Leu Gly Ser Gln Gly Ala Gly Arg Gly Gly Gln
65 70 75 80

Gly Ala Gly Ala Ala Ala Ala Ala Ala Gly Gly Ala Gly Gln Gly Gly
85 90 95

Tyr Gly Gly Leu Gly
100

<210> 4

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Monomer of spider silk DP-2A analog protein

<400> 4

Gly Pro Ser Gly Pro Gly Ser Ala Ala Ala Ala Ala Gly Pro Gly
1 5 10 15

Gln Gln Gly Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly Pro Gly Gly
20 25 30

Tyr Gly Pro Gly Gln Gln Gly Pro Ser Gly Pro Gly Ser Ala Ala Ala
35 40 45

Ala Ala Ala Ala Ala Gly Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly
50 55 60

Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly Pro Ser Gly Pro Gly Ser
65 70 75 80

Ala Ala Ala Ala Ala Ala Ala Ala Ala Gly Pro Gly Gly Tyr Gly Pro
85 90 95

Gly Gln Gln Gly Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly Pro Gly
100 105 110

Gly Tyr Gly Pro Gly Gln Gln
115

<210> 5
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Consensus repeat sequence representing spider silk analog protein DP-1

<220>
<221> MISC_FEATURE
<222> (11)..(11)
<223> Xaa = Ser, Gly, or Asn

<220>
<221> MISC_FEATURE
<222> (26)..(32)
<223> The alanine residues at positions 26-32 may optionally be present or absent.

<400> 5

Ala Gly Gln Gly Gly Tyr Gly Gly Leu Gly Xaa Gln Gly Ala Gly Arg
1 5 10 15

Gly Gly Leu Gly Gly Gln Gly Ala Gly Ala Ala Ala Ala Ala Ala
20 25 30

Gly Gly

<210> 6
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> A portion of the consensus repeat sequence representing spider silk analog protein DP-1

<220>
<221> MISC_FEATURE
<222> (13)..(19)
<223> The alanine residues at positions 13 to 19 may optionally be present or absent.

<400> 6

Ala Gly Arg Gly Gly Leu Gly Gly Gln Gly Ala Gly Ala Ala Ala
1 5 10 15

Ala Ala Ala Gly Gly
20

<210> 7
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> One of the repeat sequences representing spider silk analog
protein DP-1

<220>
<221> MISC_FEATURE
<222> (11)..(11)
<223> Xaa= Ser, Gly, or Asn

<400> 7

Ala Gly Gln Gly Gly Tyr Gly Gly Leu Gly Xaa Gln Gly
1 5 10

<210> 8
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> One of the repeat sequences representing spider silk analog
protein DP-1

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa = Ser, Gly, or Asn

<220>
<221> MISC_FEATURE
<222> (20)..(26)
<223> The alanine residues at positions 20 to 26 may optionally be
present or absent.

<400> 8

Ala Gly Gln Gly Gly Leu Gly Xaa Gln Gly Ala Gly Leu Gly Gly Gln
1 5 10 15

Gly Ala Gly Ala Ala Ala Ala Ala Ala Gly Gly
20 25

<210> 9

<211> 47
<212> PRT
<213> Artificial Sequence

<220>
<223> Consensus repeat sequence representing spider silk analog protein DP-2

<220>
<221> MISC_FEATURE
<222> (44)..(47)
<223> The alanine residues at positions 44 to 47 may optionally be present or absent.

<400> 9

Gly Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly Pro Gly Gly Tyr Gly
1 5 10 15

Pro Gly Gln Gln Gly Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly Pro
20 25 30

Ser Gly Pro Gly Ser Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
35 40 45

<210> 10
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Possible deletion in the consensus repeat sequence representing spider silk analog protein DP-2

<400> 10

Gly Pro Gly Gly Tyr
1 5

<210> 11
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Possible deletion in the consensus repeat sequence representing spider silk analog protein DP-2

<400> 11

Gly Pro Gly Gln Gln
1 5

<210> 12
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<223> One of the repeat sequences representing spider silk analog
proein DP-2

<220>
<221> MISC_FEATURE
<222> (39)..(42)
<223> The alanine residues at positions 39 to 42 may optionally be
present or absent.

<400> 12

Gly Pro Gly Gln Gln Gly Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly
1 5 10 15

Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly Pro Ser Gly Pro Gly Ser
20 25 30

Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
35 40

<210> 13
<211> 42
<212> PRT
<213> Artificial Sequence

<220>
<223> One of the repeat sequences representing spider silk analog
protein DP-2

<220>
<221> MISC_FEATURE
<222> (39)..(42)
<223> The alanine residues at positions 39 to 42 may optionally be
present or absent.

<400> 13

Gly Pro Gly Gly Tyr Gly Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly
1 5 10 15

Pro Gly Gly Tyr Gly Pro Gly Gln Gln Gly Pro Ser Gly Pro Gly Ser
20 25 30

Ala Ala Ala Ala Ala Ala Ala Ala Ala
35 40

<210> 14
<211> 37
<212> PRT
<213> Artificial Sequence

<220>
<223> One of the repeat sequences representing spider silk analog
protein DP-2

<220>
<221> MISC_FEATURE
<222> (34)..(37)
<223> The alanine residues at positions 34 to 37 may optionally be
present or absent.

<400> 14

Gly Pro Gly Gln Gln Gly Pro Gly Gly Tyr Gly Pro Gly Gly Tyr Gly
1 5 10 15

Pro Gly Gln Gln Gly Pro Ser Gly Pro Gly Ser Ala Ala Ala Ala Ala
20 25 30

Ala Ala Ala Ala Ala
35